UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/600,995	JAI ET AL.
	Examiner	**Art Unit**	
	BENJAMIN R. BRUCKART	2446	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>25 August 2008</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-21</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-21</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>27 October 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

Detailed Action

Claims 1-21 are pending in this Office Action.

Claims 1, 20 and 21 are in independent form.

Response to Arguments

Applicant's arguments filed in the amendment filed 8/25/08, have been fully considered

but they are not persuasive. The reasons are set forth below.

Applicant's invention as claimed:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis

for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-9, 14-16, 20 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Publication No. 20020120720 by Moir.

Regarding claim 1, in a system having a plurality of devices (Moir: page 4, para 54), wherein a

plurality of configuration elements are associated with the plurality of devices (Moir: page 4,

para 54-55; each device has component parameters), a method for automated generation of

executable modules associated with the devices (Moir: page 1, para 7; generating rule programs),

the method comprising the steps of:

accessing information about one or more input configuration elements of the plurality of

configuration elements (Moir: page 4, para 54-55; subcomponents, dependencies), wherein the

one or more input configuration elements are associated with one or more input rules (Moir:

page 4, para 56-page 5, para 58; rule files and operations file descript operations of components);

determining which of the plurality of configuration elements could be accessed based on

the one or more input rules (Moir: page 5, para 57-58; component behavior and constraint

definitions);

generating one or more output rules using at least the accessed information, the accessed

configuration elements, and the input rules, wherein an output rule corresponds to one or more

input configuration elements and wherein said one or more input rules comprise one or more

executable statements (Moir: page 5, para 58; the rule program is derived by compiling the rule

file and operations file); and

generating at least one executable module adapted to access at least a given one of the

input configuration elements and to trigger one or more of the output rules corresponding to the

given input configuration element (Moir: page 5, para 60; binding the rule program to "process

behavior definitions, labeled operations" for operation via a rule class).

Regarding claim 2. The method of claim 1, wherein the one or more input configuration

elements are described by one or more configuration classes (Moir: page 5, para 69- page 6, para

70) and wherein the one or more input rules are described by one or more rule files (Moir: page

5, para 57, 62).

Regarding claim 3. The method of claim 1, wherein the step of determining which of the

plurality of configuration elements could be accessed further comprises the step of determining

read and write sets of configuration elements for a given one of the one or more rules (Moir:

page 9, para 96-98; with overwriting; page 6, para 70; action for writing and predicate for reads).

Regarding claim 4. The method of claim 3, wherein the step of determining read and write sets

of configuration elements further comprises the step of determining for the given rule a call

chain emanating from the given rule (Moir: page 8, continued rule file from page 7. The

component may have multiple operations with the same identifier but with different argument

types; calling different operations).

Regarding claim 5. The method of claim 4, wherein the step of determining for a given rule a call chain emanating from the rule further comprises the steps of determining whether the given rule accesses one or more items and determining whether one or more other configuration elements are accessed by the one or more items (Moir: page 8, continued rule file from page 7. invocation of an operation).

Regarding claim 6. The method of claim 5, wherein the one or more items comprise one or more rules or one or more utility methods (Moir: page 5; para 60; number of rules; page 6, para 72; number of rules defined).

Regarding claim 7. The method of claim 5, wherein the step of determining read and write sets of configuration elements further comprises the steps of determining whether the one or more items accesses one or more additional items and determining whether one or more additional configuration elements are accessed by the one or more additional items (Moir: page 8, continued rule file from page 7. invocation of more than operation with different arguments).

Regarding claim 8. The method of claim 1, wherein the step of determining which of the plurality of configuration elements could be accessed further comprise the step of determining, for a given one of one or more configuration elements able to be accessed by an input rule, a set of instance chain accesses for the given configuration element (Moir: page 8, continued rule file from page 7. The component may have multiple operations with the same identifier but with different argument types; calling different operations).

Regarding claim 9. The method of claim 8, wherein the given configuration element comprises a configuration element of a configuration class, wherein the given configuration element is another configuration class (Moir: page 6, para 72; number of rules defined within a rule file), and wherein the step of determining, for a given one of one or more configuration elements able to be accessed by an input rule, a set of instance chain accesses for the given configuration element further comprises the step of determining every access for the other configuration class

to other configuration elements (Moir: page 8, continued rule file from page 7. invocation of more than operation with different arguments).

Regarding claim 14. The method of claim 1, wherein the at least one executable module is adapted to trigger the one or more output rules corresponding to the given input configuration element through deferred triggering of the one or more output rules (Moir: page 8; <operation> is similar to the definition in the spec that "deferred rules are invoked as a sequence, typically at the end of a configuration session").

Regarding claim 15. The method of claim 1, wherein the at least one executable module is adapted to trigger the one or more output rules corresponding to the given input configuration element through direct triggering of the one or more output rules (Moir: page 9, para 105).

Regarding claim 16. The method of claim 1, wherein the at least one executable module is adapted to trigger the one or more output rules corresponding to the given input configuration element through batch triggering of the one or more output rules (Moir: page 8, continued rule file from page 7. batch of operations with the same identifier but with different argument types).

Regarding claim 20. In a system having a plurality of devices (Moir: Fig. 12; page 4, para 54), wherein a plurality of configuration elements are associated with the plurality of devices (Moir: page 4, para 54-55; each device has component parameters), an apparatus for automated generation of executable modules associated with the devices (Moir: page 1, para 7; generating rule programs), the apparatus comprising:

> a memory (Moir: page 12, para 131); and
>
> at least one processor, coupled to the memory (Moir: page 12, para 131);
>
> the apparatus being operative:

to access information about one or more input configuration elements of the plurality of configuration elements (Moir: page 4, para 54-55; subcomponents, dependencies), wherein the one or more input configuration elements are associated with one or more input rules (Moir: page 4, para 56-page 5, para 58; rule files and operations file descript operations of components);

to determine which of the plurality of configuration elements could be accessed based on the one or more input rules (Moir: page 5, para 57-58; component behavior and constraint definitions);

to generate one or more output rules using at least the accessed information, the accessed configuration elements, and the input rules, wherein an output rule corresponds to one or more input configuration elements and wherein said one or more input rules comprise one or more executable statements (Moir: page 5, para 58; the rule program is derived by compiling the rule file and operations file); and

to generate at least one executable module adapted to access at least a given one of the input configuration elements and to trigger one or more of the output rules corresponding to the given input configuration element (Moir: page 5, para 60; binding the rule program to "process behavior definitions, labeled operations" for operation via a rule class).

Regarding claim 21. An article of manufacture for use in a system having a plurality of devices (Moir: Fig. 12; page 4, para 54; page 12, para 131), wherein a plurality of configuration elements are associated with the plurality of devices (Moir: page 4, para 54-55; each device has component parameters), and for automated generation of executable modules associated with the device (Moir: page 1, para 7; generating rule programs), the article of manufacture comprising:

a machine readable medium containing one or more programs which when executed implement the steps of (Moir: page 12, para 131):

accessing information about one or more input configuration elements of the plurality of configuration elements (Moir: page 4, para 54-55; subcomponents, dependencies), wherein the

one or more input configuration elements are associated with one or more input rules (Moir:

page 4, para 56-page 5, para 58; rule files and operations file descript operations of components);

determining which of the plurality of configuration elements could be accessed based on

the one or more input rules (Moir: page 5, para 57-58; component behavior and constraint

definitions);

generating one or more output rules using at least the accessed information, the accessed

configuration elements, and the input rules, wherein an output rule corresponds to one or more

input configuration elements and wherein said one or more input rules comprise one or more

executable statements (Moir: page 5, para 58; the rule program is derived by compiling the rule

file and operations file); and

generating at least one executable module adapted to access at least a given one of the

input configuration elements and to trigger one or more of the output rules corresponding to the

given input configuration element (Moir: page 5, para 60; binding the rule program to "process

behavior definitions, labeled operations" for operation via a rule class).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

**Claims 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable by U.S.
Patent Publication No. 20020120720 by Moir in view of U.S. Patent No. 2001/0047385 by
Tuatini.**

Regarding claim 10. The Moir reference teaches the method of claim 1.

The Moir reference fails to explicitly teach creating a class but does teach rule classes

and creating an executable module and structured output files (Moir: page 5, para 60).

However, the Tuatini reference teaches generating at least one class for a given one of the

one or more output rules, the at least one class defining the at least one executable module

(Tuatini: page 8, para 84; page 11, para 108) in order to use a standardized high level language format allowing an easy and cost effective maintenance (Tuatini: page 1, para 4-5).

It would have been obvious to one of ordinary skill in the art to create the method of generating an executable module as taught by Moir to include class file as taught by Tuatini in order to use a standardized high level language format allowing an easy and cost effective maintenance (Tuatini: page 1, para 4-5).

Regarding claim 11. The method of claim 10, wherein the at least one class comprises one or more statements adapted to access at least one given configuration element that corresponds to the one or more output rules (Moir: page 8, para 75; rule program).

Regarding claim 12. The method of claim 10, wherein each of the at least one classes comprises one or more methods adapted to access the at least one given configuration element (Moir: page 8, para 75; op number).

Regarding claim 13. The method of claim 12, wherein the access comprises reading, writing, or modifying the at least one given configuration element (Moir: page 9, para 96-98; with overwriting; page 6, para 70; action for writing and predicate for reads).

Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable by U.S. Patent Publication No. 20020120720 by Moir in view of U.S. Patent No. 2003/0105838 by Presley.

Regarding claim 17. The Moir reference teaches the method of claim 3, wherein the one or more output rules comprise two or more output rules (Moir: page 5, para 58).

The Moir reference fails to teach performing a circularity check.

However, the Presley reference teaches a method further comprises the step of performing a circularity check by determining dependency relationships between the two or more output rules and by determining whether a given one of the two or more output rules

depends upon itself (Presley: page 4, para 47) in order to provide reliable and predictable performance (Presley: page 1, para 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to create the method of claim 3 as taught by Moir to include determining dependency relationships in order to provide reliable and predictable performance (Presley: page 1, para 5).

Regarding claim 18. The Moir reference teaches the method of claim 1.

The Moir reference fails to teach range restriction.

However, the Presley reference teaches, wherein the information further comprises at least one range restriction corresponding to the given input configuration element and wherein the at least one executable module is adapted to ensure that the at least one range restriction is met when the given configuration element accessed by the one or more triggered output rules is assigned a value (Prseley: page 4, para 52) in order to provide reliable and predictable performance (Presley: page 1, para 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to create the method of claim 3 as taught by Moir to include determining dependency relationships in order to provide reliable and predictable performance (Presley: page 1, para 5).

Regarding claim 19. The Moir reference teaches the method of claim 1.

The Moir reference fails to teach dependency integers.

However, the Presley reference teaches information further comprises at least one referential integrity restriction corresponding to the given input configuration element and wherein the at least one executable module is further adapted to ensure that the at least one referential integrity restriction is met when the given configuration element is accessed by the one or more triggered output rules (Presley: page 4, para 53; referential integrity restriction specifies that a variable is dependent on the state of another variable) in order to provide reliable and predictable performance (Presley: page 1, para 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to create the method of claim 3 as taught by Moir to include determining dependency relationships in order to provide reliable and predictable performance (Presley: page 1, para 5).

REMARKS

The applicant only presented arguments and no claim amendments.

The Applicant Argues:

Applicant argues the Moir reference does not teach input rules, output rules and an executable module."

In response, the examiner respectfully submits:

Applicant again has cited the specification to further define the rules and module. The examiner states that the claim limitations are read in light of the specification but that the specification is not read into the claims. Further to that notion, the specification recites examples and illustrative embodiments that are not limiting. In the instant case, applicant makes a mere pleading that the Moir reference fails to teach limitations that are interpreted narrowly by the specification, while the claims remain broad and meet the breadth of the Moir reference.

The input configuration elements are taught by Moir on page 4, para 54-55 where subcomponents and dependencies are addressed: "Many network devices incorporate a number of software and hardware subcomponents each of which has individual characteristics and parameters." The input rules that are the dependencies as illustrated in para 55.

The generated output rules are taught in page 5, para 58 where the virtual machine compiles a rule program which "comprises a set of operations, selected from operations supported by components of the network connection device for performance by the respective components" of the rule file.

The executable module is defined by Moir in page 5, para 58 and 60 as the virtual machine compiler. The compiler binds processes behavior definitions and operations to data through compiling the operations files and rule files. The module generates the output rules through the compiler.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Benjamin R. Bruckart whose telephone number is (571) 272-

3982. The examiner can normally be reached on 9:00-5:30PM. If attempts to reach the examiner

by telephone are unsuccessful, the examiner's supervisor, Jeff Pwu can be reached on (571) 272-

6798. The fax phone number for the organization where this application or proceeding is

assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Benjamin R Bruckart
Examiner
Art Unit 2446

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